

Listing of Claims:

1. (Original) A plurality of metallic fibers, the fibers being manufactured by milling.
2. (Original) The fibers of Claim 1, wherein the mill has been controlled so as to produce fibers of a consistent width, depth and length.
3. (Original) The fibers of Claim 2, the fibers being milled from at least one piece of stock material by a computer number control (CNC) milling machine controllable in an X-axis, a Yaxis and a Z-axis.
4. (Original) The fibers of Claim 3, wherein the CNC milling machine comprises a cutting tool, and wherein the position of the cutting tool in the X-axis is controlled relative the at least one piece of stock material so as to produce fibers of a consistent width.
5. (Original) The fibers of Claim 3, wherein the CNC milling machine comprises a cutting tool, and wherein the position of the cutting tool in the Y-axis is controlled relative the at least one piece of stock material so as to produce fibers of a consistent depth.
6. (Original) The fibers of Claim 3, wherein the at least one piece of stock material is of a predetermined thickness and the length of the fibers being milled by the CNC milling machine is a function of the thickness of the at least one piece of stock material.
7. (Original) The fibers of Claim 6, wherein the at least one piece of stock material comprises a plurality of pieces of stock material, each of the plurality of pieces of stock material having a predetermined thickness and the length of the fibers being milled by the CNC milling machine is a function of the thicknesses of the plurality of pieces of stock material.
8. (Original) The fibers of Claim 3, wherein the CNC milling machine comprises a cutting tool, and wherein:

the position of the cutting tool in the Y-axis is controlled relative the at least one piece of stock material so as to produce fibers of a consistent depth; and

the position of the cutting tool in the X-axis is controlled relative the at least one piece of stock material so as to produce fibers of a consistent width.

9. (Original) The fibers of Claim 8, wherein the CNC milling machine comprises a generally cylindrical cutting tool, the cutting tool comprising:

at least one helically disposed cutting edge on the outer periphery of the cutting tool, and
at least one notch in the cutting edge, the notch of a depth exceeding the cross-bite of the cutting tool when the cutting tool is milling a piece of stock material, so that as the notch rotates over the piece of stock material, the piece of stock material is not cut by the cutting edge at the location of the at least one notch, such that the length of the fibers being milled is a function of the location of the notch on the cutting edge relative to the piece of stock material.

10. (Original) The fibers of Claim 9, the fibers having a length between about 0.012 inches and about 6 inches.

11. (Original) The fibers of Claim 10, the fibers having a length between about 0.125 inches and about 0.75 inches.

12. (Original) A battery plate for use in an electrochemical cell and the like, comprising:

a plurality of fibers in conductive contact one with another, the plurality of fibers being manufactured by milling.

13. (Original) The battery plate of Claim 12, wherein the mill has been controlled so as to produce fibers of a consistent width, depth and length.

14. (Original) The battery plate of Claim 13, the fibers being milled from at least one piece of stock material by a computer number control (CNC) milling machine controllable in an X-axis, a Y-axis and a Z-axis.

15. (Original) The battery plate of Claim 14, wherein the CNC milling machine comprises a cutting tool, and wherein the position of the cutting tool in the X-axis is controlled relative the at least one piece of stock material so as to produce fibers of a consistent width.

16. (Original) The battery plate of Claim 14, wherein the CNC milling machine comprises a cutting tool, and wherein the position of the cutting tool in the Y-axis is controlled relative the at least one piece of stock material so as to produce fibers of a consistent depth.

17. (Original) The battery plate of Claim 14, wherein the at least one piece of stock material is of a predetermined thickness and the length of the fiber being milled by the CNC milling machine is a function of the thickness of the at least one piece of stock material.

18. (Original) The fibers of Claim 17, wherein the at least one piece of stock material comprises a plurality of pieces of stock material, each of the plurality of pieces of stock material having a predetermined thickness and the length of the fibers being milled by the CNC milling machine is a function of the thicknesses of the plurality of pieces of stock material.

19. (Original) The battery plate of Claim 14, wherein the CNC milling machine comprises a cutting tool, and wherein:

the position of the cutting tool in the Y-axis is controlled relative the at least one piece of stock material so as to produce fibers of a consistent depth; and

the position of the cutting tool in the X-axis is controlled relative the at least one piece of stock material so as to produce fibers of a consistent width.

20. (Original) The battery plate of Claim 19, wherein the CNC milling machine comprises a generally cylindrical cutting tool, the cutting tool comprising:

at least one helically disposed cutting edge on the outer periphery of the cutting tool, and
at least one notch in the cutting edge, the notch of a depth exceeding the cross-bite of the cutting tool when the cutting tool is milling a piece of stock material, so that as the notch rotates over the piece of stock material, the piece of stock material is not cut by the cutting edge at the location of the at least one notch, such that the length of the fibers being milled is a function of the location of the notch on the cutting edge relative to the piece of stock material.

21. (Original) The battery plate of Claim 20, the fiber having a length between about 0.012 inches and about 6 inches.

22. (Original) The battery plate of Claim 21, the fiber having a length between about 0.125 inches and about 0.75 inches.

23. (Original) A battery plate according to Claim 20, wherein the CNC milling machine comprises a generally cylindrical carbide cutting tool.

24. (Original) A battery plate according to Claim 23, wherein the at least one piece of stock material comprises zinc.

61. (Original) The fibers of Claim 3, wherein the at least one piece of stock material comprises a metal selected from the following group of metals and alloys thereof:

aluminum;

cadmium;

copper;

iron;

magnesium;

nickel;

titanium;

silver; and

zinc.

62. (Original) The battery plate of Claim 14, wherein the at least one piece of stock material comprises a metal selected from the following group of metals and alloys thereof:

aluminum;

cadmium;

copper;

iron;

magnesium;

nickel;

titanium;

silver; and

zinc.

63. (New) The method of Claim 26, wherein the step of providing at least one piece of stock material comprises the step of selecting at least one piece of stock material comprised of a metal from the following group of metals and alloys thereof:

aluminum;

cadmium;

copper;

iron;

magnesium;

nickel;

titanium;

silver; and

zinc.

64. (New) The method of Claim 36, wherein the step of providing at least one piece of stock material comprises the step of selecting at least one piece of stock material comprised of a metal from the following group of metals and alloys thereof:

aluminum;

cadmium;

copper;

iron;

magnesium;

nickel;

titanium;

silver; and

zinc.